

## **REMARKS**

The present Amendment is in response to the Examiner's Office Action mailed July 5, 2005. Claims 1, 4, 11, and 20 are amended and claims 3, 5, 8, 9, 12, 14, 16, 17, 18, are withdrawn subject to allowance of a linking base claim. Claims 1-20 are now pending in view of the above amendments.

Reconsideration of the application is respectfully requested in view of the above amendments to the claims and the following remarks. For the Examiner's convenience and reference, Applicant's remarks are presented in the order in which the corresponding issues were raised in the Office Action.

Please note that the following remarks are not intended to be an exhaustive enumeration of the distinctions between any cited references and the claimed invention. Rather, the distinctions identified and discussed below are presented solely by way of example to illustrate some of the differences between the claimed invention and the cited references. In addition, Applicants request that the Examiner carefully review any references discussed below to ensure that Applicants understanding and discussion of the references, if any, is consistent with the Examiner's understanding.

### **I. CLAIM OBJECTIONS**

The Examiner objects to claims 1-2, 4, 6-7, 10-11, 13, 15, 19-20 because of informalities. In response, Applicants have amended claims 1, 4, 11, 20 as suggested by the Examiner to clarify the claims and remove any potential misdescriptiveness of the claim terms.

### **II. PRIOR ART REJECTIONS**

#### **A. Rejection Under 35 U.S.C. §102(b) / 103(a)**

The Examiner rejects claims 1-2, 4, 6-7, and 10 under 35 U.S.C. §102(a) as being anticipated by *Endoh et al* (United States Patent No. 5,754,571). Because *Endoh* does not teach

or suggest each and every element of the rejected claims, Applicants respectfully traverse this rejection under 35 U.S.C. §102(b) in view of the following remarks.

*Endoh* teaches in Figure 6 where the "plane of polarization of a laser beam output from a tunable wavelength light source 11 may be rotated by a liquid crystal element 52 and output to a polarizer 18." (Col. 8, lines 30-33). *Endoh* also teaches that "a voltage applied to the liquid crystal element 52 may be controlled by the controller 22 to change the attenuation amount and control the power intensity constant." (Col. 8, lines 33-36). In direct contrast to the rejected claims, *Endoh* does not teach a faraday rotator or a second polarizing element. Since *Endoh* does not teach the apparatus being claimed in this application, Applicants respectfully request that the alternative rejection under 35 U.S.C. § 102(b) be withdrawn.

In the alternative, the Examiner rejects claims 1-2, 4, 6-7, and 10 under 35 U.S.C. §103(a) as being anticipated by *Endoh*. As discussed above, *Endoh* does not teach or suggest a faraday rotator or a second polarizing element. Independent claims 1 and 4 both include these elements. It is well recognized that in order to have a valid case of prima facie obviousness, all claim limitations must be taught or suggested (see MPEP §2143). Thus, the Applicants request that the alternative rejection of claims 1-2, 4, 6-7, and 10 under 35 U.S.C. §103(a) be withdrawn.

#### **B. Rejection Under 35 U.S.C. § 103**

The Examiner rejects claims 11, 13, 15, and 19-20 under 35 U.S.C. § 103 as being unpatentable over *Endoh* in view of *Bott* (U.S. Patent No. 5,694,408).

*Endoh* teaches an optical attenuator as discussed above, but *Endoh* does not disclose, or even mention, a need for elimination of back reflection at the optical port. *Bott* teaches a means for minimizing backward propagating signals, but does not disclose, or even mention, a need to attenuate the optical power of the transmitted signals. The means for minimizing backward propagating signals disclosed by *Bott* includes a faraday rotator element with appropriate polarizers to block backward propagating signals, such as amplified spontaneous emission. (Col. 10, lines 11-20). *Bott* teaches that the isolator includes appropriate polarizers in combination

with a faraday rotator without disclosing expressly what is considered as an appropriate arrangement of these components. Thus, *Bott's* teachings are vague at best.

It is well established that "[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). Applicants provide a way of combining a variable optical attenuator with an optical isolator in a compact configuration not taught or suggested by either *Endoh* or *Bott*. This combination would not have been obvious to one of ordinary skill in view of *Bott* and *Endoh* without the benefit of the Applicant's disclosure. As illustrated in Figure 1 of the Applicant's disclosure, a first polarizing element 28 is located between a liquid crystal device 19 and a faraday rotator 32. Thus, the Applicants have discovered an arrangement where the first polarizing element 28 works in conjunction with both the liquid crystal device and the faraday rotator to attenuate and isolate an optical signal in a more compact and efficient configuration. This configuration and its operation would not be readily apparent to one of ordinary skill without the benefit of the Applicant's disclosure as a blueprint to reconstruct the invention set forth in independent claims 11 and 20. This configuration and the benefits of its compact operation are valuable to reduce cost and size requirements for manufacturing transceivers, such as the transceiver illustrated in Figure 2 of the Applicant's disclosure. Thus, neither reference discovers the benefits of combining a variable optical attenuator with an optical isolator in the same configuration as the Applicants set forth in independent claim 11. This configuration provides an unexpected improvement over *Endoh* and *Bott*. The method by which embodiments of this invention operate is also set forth by independent claim 20 and would also not be obvious to one of ordinary skill in the art for similar reasons. In view of this unexpected improvement, Applicants maintain that they are entitled to a patent and respectfully request that the Examiner withdraw the present rejection for obviousness.

**CONCLUSION**

In view of the foregoing, Applicants believe the claims as amended are in allowable form. In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, or which may be overcome by an Examiner's Amendment, the Examiner is requested to contact the undersigned attorney.

Dated this 7 day of November, 2005.

Respectfully submitted,



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